

ABSTRACT OF THE DISCLOSURE

A piezoelectric resonator includes a substrate, a vibration unit disposed on the substrate and having a structure in which at least one pair of an upper electrode and a lower electrode opposed to each other, the upper and lower electrodes sandwiching the upper and lower surfaces of an internal thin-film portion including at least one layer of a piezoelectric thin-film, and an external thin-film portion provided under the lower electrode and including at least one layer of a piezoelectric thin-film or a dielectric thin-film, the vibration unit being vibrated in an n -th harmonic (n is an integer of 2 or more), the upper electrode and the lower electrode being provided substantially in the positions of the loops of the n -th harmonic.